CLAIMS

1. A method for measuring the concentration of a specific component contained in a living body comprising the steps of:

(1) introducing light into an optical element, which is absorbed and reflected by a living body in contact with said optical element and then emitted from said optical element;

(2) detecting the light emitted from said optical element and obtaining a wavenumber signal from the detected light;

(3) correcting said wavenumber signal with the use of a calibration line for correcting the influence of a change in the state of an interface between said living body and said optical element on said wavenumber signal; and

(4) obtaining a concentration of a specific component contained in said living body from the corrected wavenumber signal.

2. The method for measuring the concentration of a specific component in accordance with claim 1, wherein said calibration line is prepared by the steps of:

(3a) obtaining "i" different spectrums corresponding to "i" different states of said interface, where said "i" is an integer from 2 to n; and

(3b) plotting "i" different points in a coordinate system and connecting said points to obtain a calibration line,

each of said "i" different points being determined from "j" different wavenumber signals corresponding to "j" different wavenumbers in each of said "i" different spectrums, where said "j" is an integer from 2 to n.

3. The method for measuring the concentration of a specific component in accordance with claim 2, wherein

said step (3a) is a step of obtaining a first spectrum and a second spectrum corresponding to two different states of said interface, and

said step (3b) is a step of plotting two points (x1, y1) and (x2, y2) in a coordinate system and connecting said two points to obtain a calibration line, one of said two points (x1, y1) being determined by two different wavenumber signals corresponding to two different wavenumbers in said first spectrum and the other of said two points (x2, y2) being determined by two different wavenumber signals corresponding to two different wavenumbers in said second spectrum.

4. The method for measuring the concentration of a specific component in accordance with claim 2 or 3, wherein said step (3) further comprises steps of:

preparing a second calibration line having the same inclination as said calibration line and passing through a point, which is determined by wavenumber signals obtained from said detected light at a plurality of different wavenumbers; and

converting said wavenumber signal in said step (2)

into a corrected wavenumber signal based on said second calibration line and a temporary condition.

5. The method for measuring the concentration of a specific component in accordance with claim 1, wherein said calibration line is prepared by the steps of:

(3A) obtaining "i" different spectrums corresponding to "i" different states of said interface, where said "i" is an integer from 2 to n, while said optical element is in contact with said living body; and

(3B) plotting "i" different points in a coordinate system and connecting said points to obtain a calibration line, each of said "i" different points being determined from "j" different wavenumber signals corresponding to "j" different wavenumbers in each of said "i" different spectrums, where said "j" is an integer from 2 to n.

6. The method for measuring the concentration of a specific component in accordance with claim 5, wherein

said step (3A) is a step of obtaining a first spectrum and a second spectrum, and

said step (3B) is a step of plotting two points (x1, y1) and (x2, y2) in a coordinate system and connecting said two points to obtain a calibration line, one of said two points (x1, y1) being determined by two different wavenumber signals corresponding to two different wavenumbers in said first spectrum and the other of said two points (x2, y2) being determined by two different wavenumber signals corresponding

to two different wavenumbers in said second spectrum.

7. The method for measuring the concentration of a specific component in accordance with claim 6, wherein said step (3) further comprises steps of:

preparing a second calibration line having the same inclination as said calibration line and passing through a point, which is determined by wavenumber signals obtained from said detected light at a plurality of different wavenumbers; and

converting said wavenumber signal in said step (2) into a corrected wavenumber signal based on said second calibration line and a temporary condition.

8. The method for measuring the concentration of a specific component in accordance with any one of claims 1 to 7, wherein said change in the state of said interface means a change in the thickness of a fluid layer.

9. The method for measuring the concentration of a specific component in accordance with claim 4 or 7, wherein the preparation of said calibration line involves the use of wavenumber signals at two or more wavenumbers in the range of 700 to 3200 cm^{-1} and the use of a wavenumber signal at any of said two or more wavenumbers as said temporary condition.

10. A device for measuring the concentration of a specific component contained in a living body comprising:

(a) an optical element to be brought into contact with a living body;

(b) a light source for introducing light into said optical element;

(c) a light detecting means for detecting the light emitted from said optical element; and

(d) a signal processing means for processing a wavenumber signal obtained in said light detecting means to correct said wavenumber signal with the use of one or more calibration line(s).

11. The device for measuring the concentration of a specific component in accordance with claim 10, wherein said signal processing means stores said calibration line(s).

12. The device for measuring the concentration of a specific component in accordance with claim 10, wherein said signal processing means calculates said calibration line(s).

13. The device for measuring the concentration of a specific component in accordance with any one of claims 10 to 12, wherein said signal processing means prepares a second calibration line having the same inclination as said calibration line and passing through a point, which is determined by wavenumber signals obtained from said detected light at a plurality of different wavenumbers, and converts said wavenumber signal into a corrected wavenumber signal based on said second calibration line and a temporary condition.

14. The device for measuring the concentration of a specific component in accordance with any one of claims 10 to

13, wherein said calibration line is a calibration line for correcting the influence of a change in the thickness of a fluid layer present at the interface between said living body and said optical element on said wavenumber signal.

15. The device for measuring the concentration of a specific component in accordance with claim 13 or 14, wherein said temporary condition is a wavenumber signal at any of the two or more wavenumbers in the range of 700 to 3200 cm^{-1} used in the preparation of said calibration line.